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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
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EXAMINER

TM02/0830

BAHTA, K

ART UNIT

PAPER NUMBER

2121

DATE MAILED:

08/30/01

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Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

Office Action Summary

Application No.

09/412,618

Applicant(s)

Gothalt

Examiner

Kidest Bahta

Art Unit

2121



-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on the amendment filed May 31, 2001
- 2a) ☒ This action is FINAL. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 35 C.D. 11; 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-29 is/are pending in the application.
- 4a) Of the above, claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-29 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claims _____ are subject to restriction and/or election requirements.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are objected to by the Examiner.
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119

- 13) ☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).
- a) ☐ All b) ☐ Some* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- *See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

Attachment(s)

- 15) ☒ Notice of References Cited (PTO-892) 18) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 16) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 19) ☐ Notice of Informal Patent Application (PTO-152)
- 17) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s). _____ 20) ☐ Other: _____

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Claim Rejections - 35 U.S.C. § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1-7 and 10-29 are rejected under 35 U.S.C. 102(b) as being anticipated by Penn et al. (US. Patent 5,594,652).

Regarding claims 1, 5, 6, 7, 13, 17, 23 and 27, Penn discloses dispensing (10) a first and second material from a printing head (20), the printing head having a plurality of nozzles (Fig. 2a, element 30; column 7, line 35) the first and second interface material (layers) having a first and second modulus of elasticity (Fig. 12; column 16, lines 17-32), second modulus of elasticity being different from the first modulus of elasticity it is inherent that different material has different elasticity (e.g. a conductive material such as aluminum and a dielectric material such as polycarbonate plastic has different elasticity) (column 16, lines 20-22), control means connected to the at least one printing head (column 6, lines 53-60) for combining the first and second interface material in predetermined proportions to produce construction layers for forming the three-dimensional model (column 10, lines 1-11).

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Regarding claims 2, 16 and 24, Penn discloses the printing head includes a plurality of printing heads and wherein each of the plurality of interface materials are dispensed from a different one of each of the plurality of printing heads, respectively (column 7, lines 21-48).

Regarding claims 3, 4, 14, 15, 25 and 26, Penn discloses curing means for optionally curing the layers (column 7, lines 60-65), curing the first and second interface material for a first and second period of time and at a first and second radiation wavelength (column 10, lines 22-40; Fig. 6a-Fig. 6d) to obtain the first and second modulus of elasticity (Fig. 7a - 7b and Fig. 8a - 8b).

Regarding claims 10 and 20, Penn discloses that the first interface material is a different color than the second interface material (column 9, lines 37-49).

Regarding claims 11, 12, 21, 22 and 28, Penn discloses that first and second material is transparent (column 7, lines 50-59).

Regarding claims 18, Penn discloses positioning apparatus coupled to the control means for selectively positioning the first and second printing heads by commands from the control means (column 8, lines 21-34).

Regarding claims 19 and 29, Penn discloses the layers are photo polymer material curable by the application of any one of a group including ultra-violet radiation, infra red radiation and e-beam (column 10, lines 27-42).

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Claim Rejections - 35 U.S.C. § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 8 and 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Penn et al. (US. Patent 5,594,652)..

Penn discloses the limitations of claim 1, as stated above in paragraph 2. However, Penn fails to specifically disclose that a wherein 95 to 100% of the construction layer includes the interface material and 0 to 5% of the construction layer includes the second interface material wherein 0 to 5% of the release layer includes the first interface material and 95 to 100% of the release layer includes the second interface materials required by claims 8 and 9. Absent any evidence of criticality or unexpected results, the criteria set forth in claims 8 and 9 are believed to represent an obvious selection of a different portion of the two materials to one of ordinary skill in the art, since a system reliability stand point, to minimize the time during which the inkjet is in use.

Response to Arguments

5. Applicant's arguments with respect to claims 1-29 have been considered but are moot in view of the new ground(s) of rejection.

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Conclusion

6. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

8. Any inquiry concerning communication or earlier communication from the examiner should be directed to Kidest Bahta, whose telephone number is (703) 308-6103. The examiner can normally be reached on M- F from 7:30 a.m. to 5:00 p.m. EST (every other Friday).

If attempts to reach the examiner by phone fail, the examiner's supervisor, William Grant, can be reached (703) 308-1108. Additionally, the fax phone for Art Unit 2121 is (703) 308-9051

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or 308-9052. Any inquiry of a general nature or relating to the status of this application should be directed to the group receptionist at (703) 305-9600.

Kidest Bahta

August 23, 2001



WILLIAM GRANT
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2100

8/27/01